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ABSTRACT

Much has been learned during the past 2 decades about school learning environments; researchers have developed a variety of measures of perceptions of learning environment characteristics. However, most of the studies on this subject have used the whole school as the unit for the research. This study examined the relationships among school-level learning environment measures of teachers' perceptions of centralized decision making, work alienation, and multiple indices of school effectiveness. School effectiveness was measured on environmental robustness, organizational effectiveness, academic effectiveness, teaching effectiveness, school holding power, and student achievement. Five hypotheses were constructed and tested, viewing teacher work alienation as a mediator of the relationship between school centralization and effectiveness. Teachers from 31 elementary schools, 13 middle schools, and 14 high schools were surveyed. Teachers were also randomly selected for observation. The results of the study supported a significant, positive correlation between the degree of centralization and the degree of teacher work alienation. Relationships between work alienation and the various effectiveness indices were mixed in both direction and magnitude. Results were also inconclusive for a relationship between centralization and the effectiveness indices. When the effects of alienation were statistically controlled, the magnitude of the relationship between centralization and effectiveness was considerably reduced. (Contains 48 references.) (Author/JPT)

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ED 368 043

Analyses of School Level Learning Environments: Centralized Decision-Making, Teacher Work Alienation and Organizational Effectiveness

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RUNNING HEAD: *School Learning Environments and School Effectiveness*

ABSTRACT

Much has been learned during the past two decades about learning environments within schools (Fraser, 1984) and a variety of measures of perceptions of learning environment characteristics have been developed (Fraser, 1986). However, most learning environment research has focused on the classroom level and few studies have been completed using the total school as the unit of analysis (Ellett & Logan, 1990). The purpose of this paper is to report the results of an investigation of the relationships among school level learning environment measures of teachers' perceptions of centralized decision making, work alienation, and multiple indices of school effectiveness (environmental robustness, organizational effectiveness, academic effectiveness, teaching effectiveness, school holding power and student achievement). Such relationships are examined within the context of Seeman's (1972) framework of social change as applied to schools. Viewing teacher work alienation as a mediator of the relationship between school centralization and effectiveness, five hypotheses were constructed and tested.

Using schools as the unit of analysis, the following results were obtained: 1) a significant, positive correlation was found to exists between the degree of centralization and the degree of teacher work alienation; 2) relationships between work alienation and the various effectiveness indices were mixed in both direction and magnitude; 3) relationships between centralization and the effectiveness indices were likewise mixed in direction and magnitude; and 4) when the effects of alienation were statistically controlled, the magnitude of the relationship between centralization and effectiveness was considerably reduced.

Introduction

As dynamic social organizations and learning environments, schools are known to be quite complex. A variety of alternative perspectives are available and potentially useful for studying the organizational and learning environment features of schools. The model or metaphor of "loose coupling" (Weick, 1976; Meyer and Rowan, 1978), for example, has often been used to depict the relationship among a variety of social and organizational features of schools. Other school organizational constructs such as "organizational health" (Hoy and Feldman, 1986), school "environmental robustness" (Licata & Willower, 1982), school "holding power" (Morris, 1986), "centralization" (Bacharach, Bamberger, Conley & Bauer, 1990) and a host of others have been explored in an attempt to better understand the complexity of schools. Understanding each of these school-level constructs and their relationships to school effectiveness and school outcomes has potential for arranging more optimally functioning learning environments for students.

Much concern and discussion have been raised about school effectiveness and productivity in American education. National studies of student achievement, popular reports depicting the poor status and quality of American education, formats for future educational change and literatures popularizing the need for school change and reform (Glickman, 1987; Cuban, 1990) document current concerns for making schools more effective, e.g. NAEP, A National at Risk, Time for Results, the National Education Goals Panel, America 2000. Within the effective schools literature,

attention has been directed to the organizational attributes of schools that are characterized as demonstrably effective. For example, research on the instructionally effective school indicates that tight linkages among school structures enhance effectiveness (Edmonds, 1979, 1982; Firestone & Wilson, 1985). Alternatively, recent studies suggest that there is no single prescription for the kinds of tight or loose linkages, or combinations of linkages among organizational features that can make schools more or less effective (Ellett & Logan, 1990; Orton & Weick, 1988).

At the same time that research has targeted understanding schools as complex, multi-faceted organizations, a considerable amount of research has targeted understanding classroom learning environments from the student perspective. Much has been learned during the past two decades about learning environments within schools and a variety of measures of perceptions of learning environment characteristics have been developed (Fraser, 1986). However, most learning environment research has focused on the classroom level and few studies have been completed using the total school as the unit of analysis (Ellett & Logan, 1990).

Using the school as the unit of analysis, this paper reports the results of a comprehensive assessment of school-level environment measures from the teacher perspective and multiple indices of school effectiveness derived from a theoretical framework posited by Seeman (1972) for understanding social change within organizations. A key concern was the extent to

which the relationship between the degree of centralized decision making and school effectiveness is mediated by levels of work alienation.

Theoretical Framework

As the German derivatives used by Marx imply, alienation represents a state of existence in which the individual is "separated from the potential" of being human. A broader understanding of alienation is gleaned when viewed against the backdrop of social change. A central thesis in theories of social change is the separation of the individual from binding social ties as a result of the destruction of the old community (Redfield, 1930). Within such a context, alienation is associated with a view of history and an attitude about the effects of historical drift on man. Tonnies (1940) has noted the decline of gemeinschaft (community) and emergence of gesellschaft (association) as the predominant type of social order. The deterioration of community and move towards modernity have witnessed the evolution of several structural trends within society (Etzioni, 1964). Seeman (1972) has identified these trends as follows:

1. Kinship to impersonality--the shift in the governance of decision-making from kinship as an important criterion to anonymity and impersonality in social relations.

2. Traditional to rational forms--the decline of traditional social forms and the rise of centralized, rationalized forms of organization.

3. Homogeneity to heterogeneity--an increased social differentiation involving an increased specialization of tasks for persons and institutions.

4. Stability to mobility--an increased mobility which implies the waning of locality ties and interpersonal bonds.

5. Enlargement of scale--the increasing scale of action as the basis of organized action.

The emergence of such organizational trends and subsequent erosion of community have proved consequential for society (Badham, 1986). Three abstract variables characterize this movement: increased rationalization of organizational structure, alienation, and negative behavioral consequences. Within the triad, alienation stands as a mediating variable. It is provoked by the emergence of increasingly rationalized forms of social organization and, in turn, leads to certain behavioral consequences.

A particularly strategic setting for the study of alienation has been the area of work. A fundamental concept for Marx, alienation is that condition found in capitalistic society whereby the laborer is separated from the possibilities of recognizing himself as a 'species being' in his work (Marx, 1963). Needless to say, work looms large in the life of man. It is that activity whereby man transforms nature and gives expression to his innermost self. As such, man's work is closely bound to the very conception of self and identity. According to Hughes (1971), it is in and through work that man creates, appreciates and guarantees human existence. Yet in spite of these realizations, it would appear that realization of self in

work is not enjoyed by all in society. Man seems to be alienated from his potential as homo faber--man the fabricator, the craftsman, the creative man; what is witnessed instead is the presence of homo laborens--man the toilsome laborer, man the mindless and deskilled worker (Braverman, 1974).

The sources of this alienation are found within the context of the modern organization. Here one encounters the confrontation of individual and organization (Argyris, 1964). The nexus is critical. On the one hand, there is the individual, who by nature desires freedom. On the other hand, there is the organization. Collective, organized behavior becomes necessary when a given task cannot be completed alone (Barnard, 1938). Yet the super-subordinate relationships brought on by organization--the move to centralize and rationalize the organization of work as much as possible--challenge individual discretion and freedom. Principles of organization require that the individual give up certain prerogatives in order to achieve order and success. At this critical interface, an ongoing dialectic exists between the organization and individual over the control of work and expression of self.

Within the structure of the modern organization, one witnesses the influence of those contemporary structural trends mentioned above: the emergence of bureaucratic/centralized forms of management, enlargement of organizational scale, increased rationalization of work and the drive to maximize efficiency (Ritzer & Walczak, 1986). The increasing presence of these

structures functions to limit the amount of discretion and thinking done by the worker as a member of the organization (Blauner, 1964). Eventually, the gradual encroachment of such structures prevents the worker from comprehending his role in the labor process, denies one the opportunity to engage in problem-solving activities and thus alienates one from the potentially aesthetic experience involved in work (Marx, 1963; Ritzer & Walczak, 1986). Consistent with Seeman's framework, such alienation has an adverse effect on the work being performed.

As a visibly significant institution within society, the public school has not been immune to these structural trends (Etzioni, 1964. The sheer demands created by the mandate of universal education seem to have produced an organizational structure that is conducive to the alienation of its members, particularly teachers. Wise (1983) notes the dangers of potential hyper-rationalization within educational organizations as attempts are made to impose policies, standards, and procedures where none are needed. The infiltration of these trends into the organization and administration of schools is well documented (Callahan, 1962; Tyack, 1974).

According to a number of researchers associated with the school effectiveness literature, it is people who matter most in schools (Purkey & Smith, 1983). As the indispensable link in the teaching-learning process, teachers are <u>the</u> critical element in any effective school (Lightfoot, 1983). The cellular growth of school structure suggests that alienated labor among teachers is

derived from attempts which threaten or deny the teacher control over that which occurs in the classroom (Jackson, 1967; Corwin, 1970; Lortie, 1975). Consistent with Seeman's theory of social change, increased rationalization of the school organization, as expressed in efforts to centralize decision-making within the school, should function to increase alienation among teachers from their work by denying teachers both input and control over decisions which directly or indirectly affect the structure of classroom activities. As further dictated by Seeman, this alienated state should have an adverse effect on the work behavior of teachers and the schools in which they work.

Using the school as the unit of analysis, this study seeks to examine the relationship between school decentralization, teacher alienation, and school effectiveness. Against the backdrop of social change, a visual description of the theoretical framework driving this study is found in Figure 1. Here Seeman's tripartite, structure-alienation-consequence macro-relationship is seen reduced to the school level.

**** Insert Figure 1 Here ****

As Figure 1 would imply (and for purposes of this study) the independent and dependent variables which emerge from Seeman's framework are school centralization and school effectiveness,

respectively. It is suggested here that alienation functions as a mediating variable. As such, alienation shares relationships with centralization and effectiveness. Centralization and effectiveness are linked together because both covary with alienation. Thus, it is not centralization alone that causes the school to be ineffective; it is the alienation brought on by centralization that leads to ineffectiveness. Thus, alienation is conceptualized here as mediating the relationship between centralization and organizational effectiveness.

Using the test proposed by Rosenberg (1968) to examine the relationship between two variables (by introducing a third), the specification of relationship between the independent and dependent variable may be restated as follows: the presence of centralization within the school organization stands as a precondition to--but not cause of--school ineffectiveness (Rosenberg, 1968). Thus, the centralization of a school does not cause it to be ineffective; it only makes it possible. The lack of effectiveness for the school organization is due to a third, mediating variable: teacher alienation. Were it not for teacher alienation, there would be no relationship between centralization and school ineffectiveness (Rosenberg, 1968). As a mediating test variable, the presence of teacher alienation in the model makes it possible to test or elaborate this relationship.

Study Hypotheses

Using this theoretical framework and logic, five hypotheses are presented in this study for testing.

H_1: There is a significant, positive correlation between the degree of administrative centralization which exists in a school and the degree of work-alienation experienced by teachers in that school.

The rationale for H_1 is rooted in the conceptualization and function of centralization. Whereas centralization describes the concentration of power to a central or single point within an organization, decentralization describes the distribution of power to several points within the organization. It is important to note that centralized decision-making within the school--particularly in the technical domain--functions as a controlling mechanism on teachers (Corwin, 1970). Whereas organizational structure should facilitate the unleashing of workers' creative energies, the centralized organization serves to repress these energies by limiting worker discretion and control over work processes. Thus, it seems reasonable to conclude that a reduction in the discretion and decisional involvement of teachers will lead to an intensification of work-alienation.

H_2: The relationship between the degree of administrative centralization in the technical domain and teacher work-alienation is stronger than the relationship between the degree of administrative centralization in the managerial domain and teacher work-alienation.

Realizing that the level of intra-organizational centralization may vary according to domain, for example, managerial vis-a-vis the technical aspects of the school organization, it seems logical to predict that centralization in the technical aspects of the school organization will be more alienating than centralization in the managerial aspects of the school organization. The sources of the aesthetic experience

involved in the work of teachers emanate primarily--though not totally--from the classroom (Lortie, 1975). The teacher has a high personal stake in the decisions which directly affect the classroom. As the chief source of aesthetic satisfaction, the classroom is the primary sphere in which the professional expertise of the teacher is given full expression. Using the test proposed by Bridges (1967), alienation would seem to be higher when teachers are denied input into decisions: 1) where the personal stakes are high; and 2) for which they have professional expertise. For example, a decision to change a given curriculum (technical domain) has a greater effect on what teachers do in the classroom than a decision regarding bus scheduling (managerial domain). The denial of teacher input into the former may be more alienating to the teacher than the latter.

H_3: There is a significant, negative correlation between the degree of work-alienation experienced by teachers in a school and the degree of organizational effectiveness exhibited by that school.

If, as predicted, the level of centralization in a school has an alienating effect on teachers, it would seem reasonable to likewise predict a negative relationship between teacher alienation and school effectiveness. The logic of this prediction stems from what is known about the work of teachers in schools, namely that: 1) all decisions made in the school, regardless of domain, directly or indirectly affect the discretion of teachers in their work; 2) the technical aspects of education are best served by providing latitude to the sub-unit responsible for instruction; and 3) the sources of the

aesthetic experience involved in the work of teachers emanate primarily from what they do in the classroom (Lortie, 1975). Schools in which teachers experience a greater degree of alienation from these sources of natural labor should prove less effective than other schools.

H_4: There is a significant, negative correlation between the degree of centralization in a school and the degree of organizational effectiveness exhibited by the school.

Given the logic of predicted relationships between school centralization and teacher work-alienation (A - B) and teacher work-alienation and school effectiveness (B - C), it seems logical to predict that school centralization and school effectiveness (A - C) will be negatively related. Such a prediction is likewise consistent with previous research. Studies examining the relationship between centralization and school effectiveness point to a negative relationship between the two. This relationship appears to be fairly consistent for both goal and systems-health conceptualizations of effectiveness (Ratsoy, 1973; Miskel, Fevurly & Stewart, 1979).

H_5 The relationship between the degree of administrative centralization in a school and the degree of organizational effectiveness exhibited by that school is statistically weaker when teacher work-alienation is held constant.

Consistent with Rosenberg's (1968) ideas regarding the use of a third variable to test or elaborate the relationship between two variables, this hypothesis seeks to examine the nature and strength of the relationship between school centralization and school effectiveness by statistically controlling for work-

alienation. Using Rosenberg's logic, the centralized school organization is a precondition but not a cause of school ineffectiveness. The centralization of a school does not cause ineffectivess; it only makes it possible. Thus, the lack of effectiveness for the school organization is due to or mediated by teacher alienation, not structural centralization.

Methodology

Sample

The sample for the study consisted of 60 schools selected from a mixed urban/rural set of school districts in a southeastern state. Teachers from 31 elementary schools, 13 middle schools, and 14 high schools responded anonymously to an instrument package received via mail.

Instrumentation/Effectiveness Indices

Data from different survey/observation measures were used in the analyses.

1. Centralization/decentralization was operationalized using Bacharach's et al. (1990) School Decisional Participation Scale (SDPS). The response format of the 19-item SDPS consists of a 4-point, Likert-type scale ranging from 1 (never) to 4 (always). Teachers were asked to complete each item of the SDPS from two perspectives: 1) the extent to which they actually participate in a particular decisional area; and 2) the extent to which they desire to participate in the same decisional area. The measure of perceived centralization used in this study was calculated by subtracting the actual from the desired level of decisional

participation. Higher scores indicate greater perceived decisional deprivation and hence greater centralization in decision making within a given school. Given this computation, the possible centralization scores for a given school ranged from -57 to +57. Since this computation yielded no negative values, the centralization index employed was conceptualized as zero-based and uni-directional.

2. Teacher work alienation was measured using Charters' (1978) Sense of Autonomy Scale (SAS). The SAS is a 24-item, Likert-type scale. After reading each item, teachers were asked to rate their reaction on a scale of 1 (strongly disagree) to 4 (strongly agree). Total instrument scores range from 24 to 96. Higher scores on the SAS are indicative of greater work autonomy and control and less work alienation.

3. The organizational effectiveness of a school was operationalized along several dimensions:

a) The System for Teaching and Learning Assessment and Review (STAR) (Ellett, Loup & Chauvin, 1990) is a standardized, classroom-based observation/evaluation instrument designed to assess multiple components of effective teaching and learning. Data from multiple STAR observations of randomly selected teachers within each school were available and were aggregated as a class-level index of school-effectiveness. As a comprehensive assessment framework for teaching and learning, the 117 assessment indicators contained in STAR reflect four

classroom performance dimensions: I) Preparation, Planning and Evaluation (26 indicators); II) Classroom and Behavior Management (23 indicators); III) Classroom Learning Environment (13 indicators); and IV) Enhancement of Classroom Learning (55 indicators). For the round of evaluations conducted during the current year, complete data were collected for only three of the four performance dimensions. Data for dimension I, Preparation, Planning, and Evaluation were not collected from all teachers. Therefore, the total number of indicators accounted for by the data in this study was 90. A summary of the organization of the STAR assessment framework (Performance Dimensions), Teaching and Learning Components and number of assessment indicators can be found in Appendix A.

During the 1990-91 academic year, 20% of the teachers at every school in the state were randomly selected by the Department of Education for assessment by a three-member, trained and certified observer team. This assessment team included: 1) the teacher's principal or an equivalent-level supervisor; 2) a master-teacher; and 3) an independent evaluator (state employee) not employed by the local school system. The three assessors independently observed each teacher for the full period of a lesson in the same class on two separate occasions, once in the fall and once in the spring. Thus, data from six separate observations were available for each teacher by the end of the school year.

The assessment indicators contained in STAR form the fundamental units of assessment for the instrument. Each indicator is scored dichotomously by the assessor as being either acceptable or unacceptable on the basis of a set of common understandings of the indicators, classroom contextual variables, considerations of conditions in an accompanying annotation, actual classroom teaching, and learning activity guideline or rule. The STAR assessor makes a dichotomous decision for each indicator by considering a variety of assessment considerations grounded in the context of the classroom. These considerations include the number of opportunities available for given events to occur, the effects of teaching methods on the enhancement of student learning, the quality of particular classroom events and conditions, etc. A teacher who is given credit for an indicator is given a score of one for that indicator. A teacher who is not given credit for an indicator is given a score of zero for that indicator.

After the sixth observation, a final evaluation score is determined by adding the scores on all of the indicators for a Component and dividing that score by the maximum possible score for the Component. Such a score represents a percentage of the maximum possible. For this study, the maximum possible score of all indicators for each teacher totaled 540 (90 indicators times 6 different observations). To determine the level of teacher effectiveness that exists

in a particular school in the sample, the percentage of the maximum possible score for all teachers evaluated in that school was averaged.

b) The IPOE (Index of Perceived Organizational Effectiveness) is an 8-item scale adapted for schools by Miskel et al. (1979). Teachers were asked to rate the effectiveness of their school along four dimensions. Two items measure each dimension. The response format for each item consists of five alternatives, scaled from 1 (low-organizational effectiveness) to 5 (high-organizational effectiveness). Instrument scores range from a minimum of 8 to a maximum of 40. Higher scores on the IPOE are indicative of higher perceived organizational effectiveness.

c) As a measure of organizational health the Organizational Health Inventory: Academic Emphasis Subscale (OHI:AE) (Hoy & Feldman, 1986) was employed. The OHI:AE presents the teacher with eight statements focusing on the amount of emphasis given to academics within the school. After reading each statement, the teacher was asked to identify the response which most accurately describes his/her school. Response options range from 1 (rarely occurs) to 4 (always occurs). Higher scores represent a greater sense of academic emphasis within the school.

d) The Robustness Semantic Differential (RSD) (Licata & Willower, 1982) was used in this study as a global measure of the environmental robustness of a given school. Licata

and Johnson (1990) define environmental robustness as "the dramatic content of school structure that functions to evoke the empathetic involvement of school participants in such a way so as to make the school an exciting and motivating place for school participants. " Teachers completed the 10-item RSD in this study.

f) Student achievement scores (composite mean NCE scores on the California Achievement Test (CAT)) were used as an index of school productivity.

g) Average daily attendance (ADA) was used as an index of school holding power (Morris, 1986).

Validity and reliability data for all instruments have been previously established and reported elsewhere (Bacharach et al. (1990); Charters (1974); Miskel, et. al., (1979); Hoy & Feldman, (1987); Ellett, Logan & Naik, (1989); Ellett, Loup, Chavin, Claudet & Naik (1990); Johnson (1990)).

Data Collection

Of the 1,761 surveys distributed in October of 1990, 1,379 were returned as useable by the end of November, 1990. The overall response rate was 78.3%. The highest return rate (79.9%) was obtained at the elementary school level. Each school made available school-related effectiveness information (student achievement and ADA) and teacher effectiveness/evaluation data (STAR).

Data Analyses

Descriptive statistics, Pearson product-moment correlations

and appropriate partial correlations were computed among the various measures/variables using school means as the units of analysis. Though not reported here, reliabilities of measures (Cronbach Alphas and G coefficients) were also computed and found to be within acceptable limits. Within school correlations were also computed as a check on common method variance and response set issues. These correlations showed significant variability in magnitude across schools in the sample and allayed any concerns about these data collection issues.

Results

H_1 and H_2 were both confirmed. Using the factors identified by Bacharach et al. (1990) on the centralization instrument, Pearson product-moment correlation coefficients were computed between the total centralization score, centralization subscales, and work-alienation. Such coefficients allow for comparisons between the strength and direction of association between paired variables. The coefficients computed are presented in Table 1. As predicted, significant positive correlations were evident between alienation and centralization ($r = .45$, $p < .01$). Not only was this true for the total centralization instrument, but for each subscale as well. Centralization and alienation coefficients ranged from .33 ($p < .01$) for the Managerial-Personal subscale to .57 ($p < .01$) for the Technical-Personal subscale.

** Insert Table 1 Here **

The third hypothesis was also tested using Pearson product correlations. Coefficients were computed for alienation and the multiple indices of organizational effectiveness. These coefficients are found in Tables 2 and 3.

**** Insert Table 2 Here ****

Correlational coefficients measuring the relationship between alienation and the STAR are provided in Table 2. The STAR consists of 23 Teaching and Learning Components (TLC) classified within four Performance Dimensions (see Appendix A). For this study, only data from 15 of the 23 Components were analyzed. These 15 Components comprise Performance Dimensions II, III, and IV of the STAR. Of the 15 possible alienation/STAR TLC correlations, 14 were negative in direction and 4 were statistically significant: II.D. - Managing Task-Related Behavior, $r = -.35$, ($p < .01$); IV.E. - Teaching Thinking Skills, $r = -.30$ ($p < .05$); IV.H. - Monitoring and Informal Assessment, $r = -.36$ ($p < .01$); and IV.J. - Oral and Written Communication, $r = -.28$ ($p < .05$).

**** Insert Table 3 Here ****

Table 3 provides correlation coefficients for the relationships between alienation and the remaining indices of

organizational effectiveness. Significant negative correlations were evident between alienation and each of the teacher-perceived measures of organizational effectiveness: Organizational Effectiveness, $r = -.41$; Organizational Health: Academic Emphasis, $r = -.44$; and School Robustness, $r = -.46$. No significant correlation, however, was evident between alienation and ADA. Alienation was also found to be significantly and negatively correlated with School Achievement, $r = -.27$ ($p < .05$).

To examine the relationship between centralization and school organizational effectiveness, Pearson product-moment correlation coefficients were calculated for the centralization scale and each of the six indices of effectiveness operationalized in this study. Table 2 provides a summary of the intercorrelations between the school centralization scale and the 15 STAR TLC. Out of the 15 possible coefficients, 13 were negative in direction. Only four, however, were statistically significant: II-D. - Managing Task-Related Behavior, $r = -.28$ ($p < .05$); IV.E. - Teaching Thinking Skills, $r = -.32$ ($p < .01$); IV.F.- Clarification, $r = -.29$ ($p < .05$); and IV.I - Feedback, $r = -.41$ ($p < .001$).

Intercorrelations between the centralization scale and the remaining measures of organizational effectiveness are reported in Table 3. Moderately strong, negative correlations were found between centralization and the three measures of teacher perceived effectiveness. These correlations were all negative in

direction and significant at the $p < .01$ level: Effectiveness, $r = -.57$; Health, $r = -.53$; and School Robustness, $r = -.55$. No significant correlations were evident for the Student Achievement and Attendance variables.

The fifth hypothesis was tested using a partial correlational technique (SPSS, 1988). The relationship between centralization and the multiple indices of effectiveness was examined while statistically controlling for work-alienation variance. As a result, H_5 was also confirmed; no significant correlations emerged.

Discussion and Implications

The results of this study provided some interesting findings about the relationships between a set of important school-level, organizational features and learning environment measures and multiple indices of school effectiveness. The results suggest, from the teacher perspective, that teacher work alienation is an important variable moderating the relationship between the degree of centralized decision making in schools and multiple indices of school effectiveness. However, this general finding did not hold in all instances and was rather dependent upon the particular index of effectiveness used. The degree of centralized decision making was not importantly related to either school productivity (achievement) or school holding power (ADA) variables. Thus, Seeman's (1972) theoretical framework that guided the study seems formulated at a level of abstraction that may not easily fit understanding and studying school environments and school

effectiveness. The mixed results evident for centralization, teacher work alienation and the various indices of effectiveness suggest that the concept of school effectiveness needs to be clarified. The findings produced confirm to a degree the utility of Seeman's framework (1972). As applied specifically to the school organization, greater centralization appears to be associated with teacher alienation and ineffectiveness. These relationships, however, must be qualified. Whereas centralization does share a negative relationship with alienation, centralization in certain areas of the school organization proved more alienating for teachers than in other areas of the school organization. Unlike its relationship with alienation, the relationship shared between centralization and effectiveness was more ambiguous. This relationship appeared to be dependent on the measure of effectiveness in question. Whereas centralization shared a clear inverse relationship with teacher perceived measures of effectiveness, relationships between centralization and independent measures of effectiveness proved somewhat conflicting and indefinite. Such relationships were positive, negative, and in some cases not significant.

Thus, Seeman's theory fails to account for the fact that a given organization may be effective and ineffective simultaneously. Such discrepancies are left unexplained. It is here that the framework has its limitations. Lest one be too harsh a critic, however, let it be recalled that the very meaning and measure of effectiveness has been the focus of no small

perennial debate (Goodman & Pennings, 1977). Within the context of the school organization, such debates have been particularly heated in recent years. Hence, the issue is raised regarding the importance of accurately delineating the operational definitions of an effectiveness study. Tendencies to globalize effectiveness as a measure, something that Seeman's theory tends to do, appear to gloss over and mask these crucial distinctions. Within the setting of the school organization, it is possible to speak of effectiveness at various levels: student effectiveness, teacher effectiveness, academic effectiveness, organizational effectiveness, etc. As was evidenced in this study, centralization shares different relationships with each of these types of effectiveness. Results provided here suggest that one can work in a school that is both organizationally effective (in terms of positive climate and environment) and academically ineffective (in terms of student achievement). As Glickman (1987) and Logan (1990) have previously noted, a school can be at one and the same time good and ineffective. Globalization of the effectiveness variable, as is evidenced by Seeman's theory, prohibits and masks such distinctions.

In addition to a reconsideration of the theoretical framework guiding this study, a reconsideration of the methodology employed also seems in order. A possible explanation for the conflicting results reached in this study are the incompatibilities between dependent and independent measures, i.e. measures derived from the same source, e.g. teachers'

perceptions of centralization, alienation, and school effectiveness vs. measures derived from different sources, e.g. teachers' perceptions, standardized test scores, community perceptions. As noted in the discussion of the individual hypotheses, dependent measures of effectiveness tend to yield different results from their independent counterparts. Both Pennings (1973) and Walton (1981) have noted the low convergence which exists between survey and institutional measures of organizational structure. They suggest that convergence cannot be expected between measures that focus on different referents or that apply at different levels of analysis. While incorporated as measures of effectiveness in this study, independent measures were not used to measure the relationships between centralization and alienation.

The finding that centralization and teacher alienation measures were significantly but negatively related to the quality of teaching and learning in these schools suggests that highly centralized schools may alienate teachers from their work, reduce subsequent teacher morale and motivation, and negatively influence school effectiveness and productivity as well. These findings seem to call into question the "tight ship" metaphor frequently cited in the effective schools literature as appropriate for enhancing school learning environments. These findings also suggest that the new call for systemic models of restructuring and improving schools (e.g., site-based management, shared decision making) may be important models for enhancing

school organizational and learning environment elements to foster greater school effectiveness and productivity. Alternatively, it may be that less effective teachers gravitate to and work in schools that are characterized by administrative leadership styles of highly centralized decision making.

Significant correlations between two of the five effectiveness indices used in this study have implications for understanding the nature of learning environments at the school level. As a global measure of school climate, environmental robustness (RSD) was found to correlate strongly with organizational effectiveness (IPOE) ($r = .81$, $p < .01$) This relationship suggests that organizationally effective schools are characterized by robust environments, i.e. environments that teachers view as interesting, meaningful, challenging, active and generally "robust." Thus, it terms of learning environments, the effective school is perceived by teachers as being the robust school. A second significant correlation suggests a similar conclusion. A strong, positive correlation was found to exists between environmental robustness (RSD) and the perceived emphasis given to academics in the school (OHI:AE) ($r = .84$, $p < .01$). In the robust school, a great deal of emphasis is given to academics and learning. Taken together, these findings suggest that robustness may, in fact, be an important element of organizational and school effectiveness. When coupled with the other findings in this study, organizational structure, e.g. centralization, and personal variables, e.g. work-alienation, may

be important negative correlates of the teaching and learning environment experienced at the classroom level.

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FIGURES AND TABLES

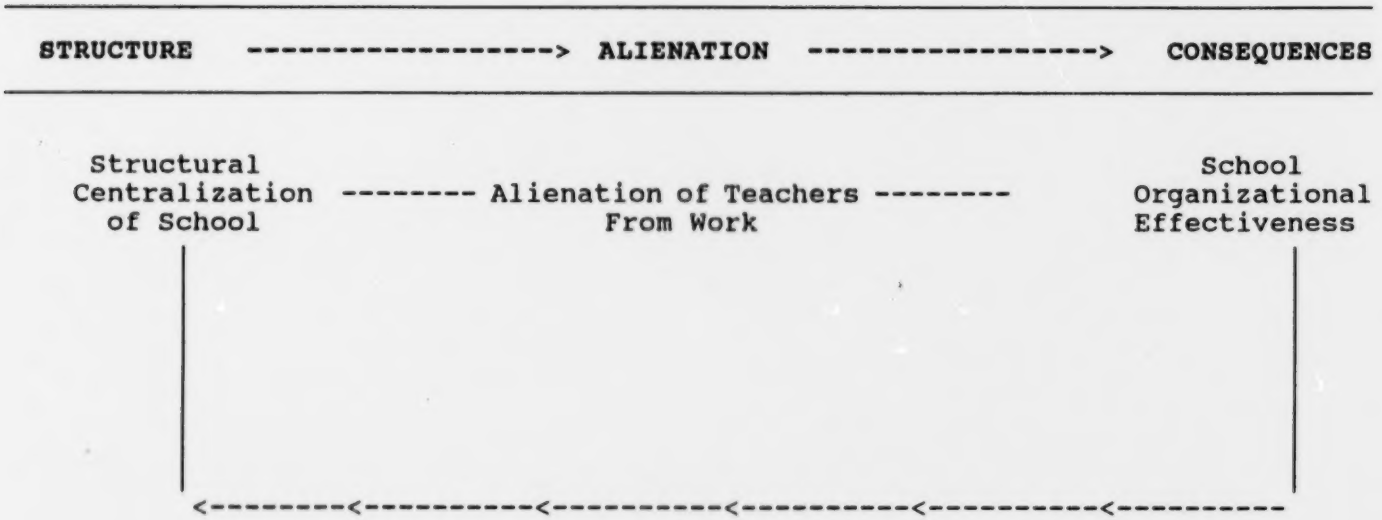

Figure 1: The structural centralization, worker alienation, and school organizational effectiveness relationship reduced to the school level.

Table 1

Intercorrelations Between Centralization Subscales and Alienation (n = 59)

Scale/Subscale	Work Alienation
Total Centralization (19)[a]	.45**
Technical-Organizational (6)	.45**
Technical-Personal (4)	.57**
Managerial-Organizational (4)	.35**
Managerial-Personal (4)	.33**

[a] Number of items per scale or subscale.

* $p < .05$
** $p < .01$

Table 2

Intercorrelations Among Alienation Scales and STAR Components (n = 57)

STAR Component		Centralization	Work Alienation
II.A	Time	-.18	-.17
II.B	Classroom Routines	-.01	-.13
II.D	Task Management	-.28*	-.35**
II.E	Monitoring Behavior	-.19	-.01
III.A	P-S Environment	-.13	-.05
III.B	Physical Environment	.01	.17
IV.A	Lesson Initiation	.01	-.01
IV.B	Teaching Methods	-.09	-.11
IV.C	Aids & Materials	-.22	-.19
IV.D	Content Accuracy	-.19	-.14
IV.E	Thinking Skills	-.32**	-.30*
IV.F	Clarification	-.29*	-.22
IV.G	Informal Assessment	-.41***	-.36**
IV.H	Feedback	-.08	-.02
IV.I	Communication	-.08*	-.28*

* $p < .05$
** $p < .01$
*** $p < .001$

Table 3

Intercorrelations Among Alienation and Effectiveness Scales (n = 59)

Scale	Centralization	Alienation
IPOE	-.57**	-.41**
OHI:AE	-.53**	-.44**
RSD	-.55**	-.46**
ADA	-.01	.03
ACHIEVEMENT	.11	-.27*

* $p < .05$
** $p < .01$

Table ??

Intercorrelations Between Organizational Effectiveness Indices (n=59)

	IPOE	OHI:AE	RSD	ADA	ACHIEVE
IPOE	1.00				
OHI:AE	.79**	1.00			
RSD	.81**	.84**	1.00		
ADA	.18	.13	.10	1.00	
ACHIEVE	-.12	-.04	-.07	-	1.00

IPOE = Index of Perceived Organizational Effectiveness
OHI:AE = Organizational Health Inventory: Academic Emphasis
RSD = Robustness Semantic Differential
ADA = Average Daily Student Attendance
ACHIEVE = California Achievement Test (NCE)

* $p < .05$
** $p < .01$

APPENDIX

APPENDIX A

Organizational Framework for the **STAR**:
System for Teaching and learning Assessment and Review

DIMENSION I: PREPARATION, PLANNING, AND EVALUATION (26)[a]

- A. Goals and Objectives (4)[b]
- B. Teaching Methods and Learning Tasks (4)
- C. Allocated Time and content Coverage (4)
- D. Aids and Materials (4)
- E. Home Learning (3)
- F. Formal Assessment and Evaluation (7)

DIMENSION II: CLASSROOM AND BEHAVIOR MANAGEMENT (23)

- A. Time (6)
- B. Classroom Routines (4)
- C. Student Engagement (1)
- D. Managing Task-Related Behavior (6)
- E. Monitoring and Maintaining Student Behavior (6)

DIMENSION III: LEARNING ENVIRONMENT (13)

- A. Psycho-social Learning Environment (10)
- B. Physical Learning Environment (3)

DIMENSION IV: ENHANCEMENT OF LEARNING (55)

- A. Lesson and Activities Initiation (8)
- B. Teaching Methods and Learning Tasks (6)
- C. Aids and Materials (6)
- D. Content Accuracy and Emphasis (6)
- E. Thinking Skills (11)
- F. Clarification (4)
- G. Monitoring Learning Tasks and Informal Assessment (6)
- H. Feedback (4)
- I. Oral and Written Communication (4)

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[a] Number of assessment indicators comprising performance dimension.

[b] Number of assessment indicators comprising teaching and learning component.